

## REMARKS:

### Status of claims and amendments

Claims 1-7 are pending in the application. In the Office Action dated September 28, 2006, the Examiner:

1. rejected claims 1-4 under 35 U.S.C. 112, second paragraph, as being indefinite;
2. rejected claim 1 under 35 U.S.C. 102(b) as being anticipated by Shimanuki et al;
3. rejected claims 5-7 under 35 U.S.C. 102(b) as being anticipated by Takeu; and
4. rejected claims 2-4 under 35 U.S.C. 103(a) as being unpatentable over Shimanuki et al in view of Takeu and Okamoto.

These rejections are respectfully traversed in light of the instant amendments.

In this amendment, claim 1 has been amended to overcome the rejection under 35 U.S.C. 112, second paragraph, to include the subject matter of claim 2, for further clarity, and to include the limitation that “a passage of the coolant circulation flow field consists of at least one third cooling pipe.” Claim 2 has been canceled. Claims 3-4 have been amended for further clarity. Claim 5 has been amended for further clarity, and to include the limitation of the “at least one third pipe...completely housing a coolant circulation flow field.” Claims 6-7 have been amended for further clarity. New claim 8 has been added. No new matter is added; see at least paragraph 26 for support for the amendments to claims 1 and 5, and paragraph 28 and Figure 1, in which an exemplary radiator is indicated at reference numeral 23, for support for new claim 8.

### Amended claims 1 and 5

In the rejections of original claims 2 and 5, the Examiner referred to Takeu's cooling pipes 20 as corresponding to the inventive cooling pipe for a coolant circulation flow field having a plurality of streamlined fins on its circumferential surface. However, Takeu discloses “plural cooling pipes 20...among which, in a cooling pipe 20a...there are provided...cooling fins 21...and...cooling pipes 20b...are constituted of the cooling pipe similar to those heretofore in use,” *i.e.* without cooling fins 21. (abstract and Fig. 1). In contrast, the inventive cooling pipe (the third pipe in amended claims 1 and 5) forms the entirety of the coolant circulation flow field. As discussed at paragraph 27, this leads to more efficient cooling than in the prior art.

Takeu does not disclose or suggest "a passage of the coolant circulation flow field consists of at least one third cooling pipe which has a plurality of fins on a circumferential surface thereof" (amended claim 1), nor does it disclose or suggest "at least one third pipe comprising a plurality of fins on a circumferential surface thereof, and completely housing a coolant circulation flow field" (amended claim 5). All other pending claims depend, directly or indirectly, from claim 1 or claim 5. All pending claims are thus patentable over Shimanuki, Takeu, and Okamoto.

#### **New claim 8**

As indicated in paragraph 28, only one radiator is sufficient to cool the inventive system, providing a structure that is simplified compared to the prior art.

#### **Conclusions**

In view of the foregoing, Applicant believes all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance is respectfully requested.

Applicant believes the fees due at this time to be \$120 for a one-month extension of time, a request for which is being made herewith. Authorization is granted to charge this and any outstanding fees due at this time for the continued prosecution of this matter, or credit any overpayment, to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310 (matter no. 060944-0208).

Respectfully submitted,



Jessica C. Stahnke (Reg. No. 57,570)

for Thomas D. Kohler (Reg. No. 32,797)

MORGAN, LEWIS & BOCKIUS LLP

One Market, Spear Street Tower

San Francisco, CA 94105

415.442.1603

January 29, 2007

Date